

From: Rand Crafts
To: Milka Radulovic
Date: Tuesday, January 28, 2003 8:11 AM
Subject: AO Details for IPP NOI

Milka,

Thank you for your time yesterday. I appreciate your willingness to work out the details with both the EPA and IPSC.

Here's my thoughts on a couple of the issues we discussed:

Regarding Utilization -

Federal regulatory permitting history has shown that add-on controls such as overfire air do not impact utilization. (Seitz memo, 7/1/94, pg 15, last paragraph.) Such is the case with the installation of overfire air at IPP. For instance, overfire air does not affect heat input or production output because it is not a thermal source nor an efficiency enhancement device. Further, since each steam electric generating unit at IPP is already set at maximum design performance as approved in AO #DAQE-049-02, no further increased utilization can be realized just by the addition of overfire air. In fact, the use of overfire air has a negative impact on performance. This also ties to the fact that while OFA reduces NOx generation in the boiler, potentially allowing more room to operate at higher loads, it is unlikely that IPP can achieve load levels above the design of 950 MW. Finally, since IPP is a baseload plant, it is already operated on a fully loaded, year round cycle, with the exception of maintenance outages, which are not affected by pollution controls. DAQ may monitor utilization through information already supplied in quarterly reports from IPP to verify what effect the project has on utilization. (Seitz memo, 7/1/94, page 12, second paragraph.)

Regarding CO and differing limits:

In the current AO, I would change Condition 12 to read, "Annual emissions from the entire plant shall not exceed.....

CO . . . 5,468.0 tons per rolling 12 month period "

(This is the value of the previous limit plus the increase due to overfire air. The modeling was for the increase only, not plant-wide. This is the value of the original PTE modeling, which we do not propose to increase. If you recall, we did not have this value when we did the dense pack uprate modifications, and had to calculate a new PTE based upon AP-42. It is now appropriate to make the correction accordingly.)

Then, I would change Condition 25 to read "In order to demonstrate that the uprate modifications did not result in significant emissions increases....."

Note that the last sentence of Condition 25 already states that "Records for the rest of pollutants (add "including CO,) shall be based upon EPA's compilation of Air Emission Factors (AP-42)....."

And then we would show that the AP-42 calculated CO values after the change are no more than 100 tons more than the baseline, provided in the annual WEPCO reports. This can be defended because AP-42 calculates CO based directly on heat input, which is directly affected by the uprate modifications - and NOT overfire air.

Further, you can add a new condition that states: "In order to verify that the installation of overfire air is environmentally beneficial, i.e., that collateral increases are kept to a minimum within the physical configuration and operational standards associated with overfire air, IPSC shall demonstrate the following:

- a) Perform CO testing after the installation of overfire air to confirm that the absolute value in NOx reduction is greater than the increase in CO.
- b) Confirm that the project meets BACT for CO through good combustion practice (GCP).

GCP shall be shown by developing, during a post installation test, a performance curve whereby CO can be calculated from NOx and excess air values. Except for start-ups, shutdowns, and malfunctions, IPSC shall demonstrate GCP by operating within the ranges developed by testing. IPSC shall test the OFA within 90 days of installation and provide to the DAQ the test results and curve values within 60 days of testing."

Then, you should allow through a new condition the ability to operate the OFA on a short term basis for demonstration purposes so that we don't have to wait for a Title V change. For instance, you can provide language to operate the OFA in a demonstration period for testing and shake down for a period of 120 days or something like that.

Let me know what you think. I tried to keep it as simple as possible, yet directly address the questions you raised. Thanks.

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